

Amendments to the Claims:

This listing of claims replaces all prior versions and listings of claims in the application:

Listing of Claims:

1. (Currently amended) A marking composition, comprising:
a polymer first material comprising silicon; and
a second material capable of extending polymeric chains of the first material,
wherein the first material comprises a phenyl methyl silicone resin and the molar weight
ratio of phenyl to methyl groups is between about 0.4:1 and 2.1:1, and the first material does not
include an alkoxy group, and
the marking composition is capable of undergoing a change that can be detected optically
when the composition is contacted with energy.
2. (Original) The composition of claim 1, wherein the second material is capable of
crosslinking with the first material.
3. (Original) The composition of claim 1, wherein the second material comprises a
polyol.
4. (Original) The composition of claim 1, wherein the second material is selected
from a group consisting of a diol and a triol.
5. – 8. Canceled.
9. (Original) The composition of claim 1, further comprising a crosslinking agent.
10. (Original) The composition of claim 9, wherein the crosslinking agent comprises
a silane.
11. (Previously presented) A marking composition, comprising:
a polymer first material comprising silicon;
a second material capable of extending polymeric chains of the first material; and
a blocked, catalytic crosslinking agent,
wherein the marking composition is capable of undergoing a change that can be detected
optically when the composition is contacted with energy.

12. (Original) The composition of claim 11, wherein the blocked crosslinking agent comprises a carbamate.
13. (Original) The composition of claim 1, further comprising a catalyst.
14. (Original) The composition of claim 13, wherein the catalyst is selected from a group consisting of a platinum-based catalyst, a zinc-based catalyst, and a Lewis acid.
15. (Previously presented) A marking composition, comprising:
a polymer first material comprising silicon;
a second material capable of extending polymeric chains of the first material; and
an optical tag,
wherein the marking composition is capable of undergoing a change that can be detected optically when the composition is contacted with energy.
16. (Previously presented) A marking composition, comprising:
a polymer silicone resin; and
a blocked, catalytic crosslinking agent capable of crosslinking with the resin,
wherein the marking composition is capable of undergoing a change that can be detected optically when the composition is contacted with energy.
17. Canceled.
18. (Original) The composition of claim 16, wherein the resin comprises a combined aromatic and aliphatic substituted silicone resin.
19. (Original) The composition of claim 16, wherein the resin comprises a phenyl methyl silicone resin.
20. (Currently amended) The composition of claim 19, wherein the molar ratio of phenyl to methyl groups is between about 0.4:1 and 2.1:1.
21. Canceled.
22. Canceled.
23. (Previously presented) The composition of claim 16, wherein the crosslinking agent comprises a carbamate.
24. (Original) The composition of claim 16, further comprising a catalyst.

25. (Original) The composition of claim 24, wherein the catalyst is selected from a group consisting of platinum-based catalyst and zinc-based catalyst.

26. (Previously presented) The composition of claim 16, comprising about 10 to about 90 percent of the resin; and about 0.1 to about 9 percent of the crosslinking agent.

27. – 34. Canceled

35. (Currently amended) An article, comprising:
a substrate; and
a marking composition on the substrate, the composition comprising:
a polymer first material comprising silicon; and
a second material capable of extending polymeric chains of the first material,
wherein the first material comprises a phenyl methyl silicone resin and the molar weight ratio of phenyl to methyl groups is between about 0.4:1 and 2.1:1, and the first material does not include an alkoxy group, and
the marking composition is capable of undergoing a change that can be detected optically when the composition is contacted with energy.

36. (Original) The article of claim 35, wherein the second material is capable of crosslinking with the first material.

37. (Original) The article of claim 35, wherein the second material comprises a polyol.

38. (Original) The article of claim 35, wherein the second material is selected from a group consisting of a diol and a triol.

39. – 42. Canceled.

43. (Previously amended) The article of claim 35, wherein the composition further comprises a crosslinking agent.

44. (Original) The article of claim 43, wherein the crosslinking agent comprises a silane.

45. (Previously presented) An article, comprising:
a substrate; and
a marking composition on the substrate, the composition comprising
a polymer first material comprising silicon;
a second material capable of extending polymeric chains of the first material; and

a blocked, catalytic crosslinking agent,
wherein the marking composition is capable of undergoing a change that can be detected optically when the composition is contacted with energy.

46. (Original) The article of claim 45, wherein the blocked crosslinking agent comprises a carbamate.

47. (Previously presented) The article of claim 35, wherein the composition further comprises a catalyst.

48. (Original) The article of claim 47, wherein the catalyst is selected from a group consisting of a platinum-based catalyst, a zinc-based catalyst, and a Lewis acid.

49. (Previously presented) An article, comprising:
a substrate; and
a marking composition on the substrate, the composition comprising
a polymer first material comprising silicon;
a second material capable of extending polymeric chains of the first material; and
an optical tag,
wherein the marking composition is capable of undergoing a change that can be detected optically when the composition is contacted with energy.

50. (Original) The article of claim 35, wherein the substrate comprises a metal.

51. (Original) The article of claim 35, wherein the substrate is a beverage can.

52. (Previously presented) The composition of claim 11, wherein the second material is capable of crosslinking with the first material.

53. (Previously presented) The composition of claim 11, wherein the second material comprises a polyol.

54. (Previously presented) The composition of claim 11, wherein the second material is selected from a group consisting of a diol and a triol.

55. (Previously presented) The composition of claim 11, wherein the first material comprises a silicone resin.

56. (Previously presented) The composition of claim 11, wherein the first material comprises a combined aromatic and aliphatic substituted silicone resin.

57. (Previously presented) The composition of claim 11, wherein the first material comprises a phenyl methyl silicone resin.

58. (Currently amended) The composition of claim 57, wherein the molar weight ratio of phenyl to methyl groups is between about 0.4:1 and 2.1:1.

59. (Previously presented) The composition of claim 11, further comprising a catalyst.

60. (Previously presented) The composition of claim 59, wherein the catalyst is selected from a group consisting of a platinum-based catalyst, a zinc-based catalyst and a Lewis acid.

61. (Previously presented) The composition of claim 15, wherein the second material is capable of crosslinking with the first material.

62. (Previously presented) The composition of claim 15, wherein the second material comprises a polyol.

63. (Previously presented) The composition of claim 15, wherein the second material is selected from a group consisting of a diol and a triol.

64. (Previously presented) The composition of claim 15, wherein the first material comprises a silicone resin.

65. (Previously presented) The composition of claim 15, wherein the first material comprises a combined aromatic and aliphatic substituted silicone resin.

66. (Previously presented) The composition of claim 15, wherein the first material comprises a phenyl methyl silicone resin.

67. (Currently amended) The composition of claim 66, wherein the molar weight ratio of phenyl to methyl groups is between about 0.4:1 and 2.1:1.

68. (Previously presented) The composition of claim 15, further comprising a crosslinking agent.

69. (Previously presented) The composition of claim 68, wherein the crosslinking agent comprises a silane.

70. (Previously presented) The composition of claim 15, further comprising a catalyst.

71. (Previously presented) The composition of claim 70, wherein the catalyst is selected from a group consisting of a platinum-based catalyst, a zinc-based catalyst, and a Lewis acid.

72. (Previously presented) The composition of claim 45, wherein the second material is capable of crosslinking with the first material.

73. (Previously presented) The composition of claim 45, wherein the second material comprises a polyol.

74. (Previously presented) The composition of claim 45, wherein the second material is selected from a group consisting of a diol and a triol.

75. (Previously presented) The composition of claim 45, wherein the first material comprises a silicone resin.

76. (Previously presented) The composition of claim 45, wherein the first material comprises a combined aromatic and aliphatic substituted silicone resin.

77. (Previously presented) The composition of claim 45, wherein the first material comprises a phenyl methyl silicone resin.

78. (Currently amended) The composition of claim 77, wherein the molar weight ratio of phenyl to methyl groups is between about 0.4:1 and 2.1:1.

79. (Previously presented) The composition of claim 45 further comprising a catalyst.

80. (Previously presented) The composition of claim 79, wherein the catalyst is selected from a group consisting of a platinum-based catalyst, a zinc-based catalyst and a Lewis acid.

81. (Currently amended) A marking composition, comprising:
a polymer first material comprising a phenyl methyl silicone resin, the molar weight ratio of phenyl to methyl groups being between about 0.4:1 and 2.1:1; and
a crosslinking agent,
wherein the marking composition is capable of undergoing a change that can be detected optically when the composition is contacted with energy.

82. (Previously presented) The composition of claim 81, wherein the crosslinking agent comprises a silane.

83. (Previously presented) The composition of claim 81, further comprising a blocked crosslinking agent.

84. (Previously presented) The composition of claim 83, wherein the blocked crosslinking agent comprises a carbamate.

85. (Previously presented) The composition of claim 81, further comprising a catalyst.

86. (Previously presented) The composition of claim 85, wherein the catalyst is selected from a group consisting of a platinum-based catalyst, a zinc-based catalyst, and a Lewis acid.

87. (Previously presented) The composition of claim 15, wherein the optical tag comprises 2,2'-(2,5-thiophenediyl)bis[5-tert-butylbenzoxazole].

88. (Previously presented) The article of claim 49, wherein the optical tag comprises 2,2'-(2,5-thiophenediyl)bis[5-tert-butylbenzoxazole].

89. (Previously presented) The composition of claim 11, wherein the crosslinking agent is capable of deblocking to form an amine.

90. (Previously presented) The composition of claim 11, wherein the crosslinking agent comprises a silane.

91. (Previously presented) The composition of claim 16, wherein the crosslinking agent is capable of deblocking to form an amine.

92. (Previously presented) The composition of claim 16, wherein the crosslinking agent comprises a silane.

93. (Previously presented) The composition of claim 45, wherein the crosslinking agent is capable of deblocking to form an amine.

94. (Previously presented) The composition of claim 45, wherein the crosslinking agent comprises a silane.

95. (New) A marking composition, comprising:
a polymer first material comprising silicon, the first material being alkyl aromatic substituted; and
a second material capable of extending polymeric chains of the first material,

Applicant : Richard J. Larson, Jr., et al.
Serial No. : 09/855,916
Filed : May 15, 2001
Page : 9 of 11

Attorney's Docket No.: 06155-063001

wherein the marking composition is capable of undergoing a change that can be detected optically when the composition is contacted with energy.

96. (New) The composition of claim 95, wherein the alkyl group is a methyl group, an ethyl group, or a propyl group.

97. (New) The composition of claim 95, wherein the first material comprises a phenyl group.

98. (New) The composition of claim 95, wherein the first material comprises a phenyl methyl silicone resin and the molar ratio of phenyl to methyl groups is between about 0.4:1 and 2.1:1.